



ACS380 machinery drive

The perfect drive for precise performance.

Introducing the smallest member of the all-compatible drives family.

Ideal for both machine builders looking to integrate VFD without incurring significant cost and end users wanting to increase productivity without sacrificing performance. The ACS380 machinery drive is a robust and compact drive, with a power range from 0.5 to 10 HP, and voltages from 200 to 240 V (one-phase) and 380 to 480 V (three-phase).

Featuring an intuitive control panel with an icon based menu for easy start-up and commissioning. All essential features are built-in as standard, reducing the need for additional hardware and simplifying drive selection. Available with EMC, built-in STO for safety sensitive applications, and factory configured connectivity variants to ensure seamless integration into automation systems.

Best suited for machine building in the food and beverage, material handling, and plastic industries, the ACS380 is designed for applications requiring accurate speed and torque control, such as mixers, extruders, conveyors, and palletizers.



The innovation behind **all-compatible** is ABB's common drives architecture designed to simplify access and operation, optimize energy efficiency, and maximize performance output.

Mains connection	
Voltage and power range	1-phase, 200 to 240 V, +10%/-15% 1/3 to 3 HP (0.25 to 2.2 kW) 3-phase, 380 to 480 V, +10%/-15% .05 to 10 HP (0.37 to 7.5 kW) Built-in braking chopper and common DC connection with integral charging circuit
Frequency	50/60 Hz ±5%
Degree of protection	IP20 as standard (UL open type)
Ambient conditions	14 to 122 °F (-10 to +50 °C), up to 140°F (+60°C) with derating 0 to 13,000 ft (0 to 4,000 m), derating above 3,300 ft (1,000 m)
Compliance	UL, cUL, CE, RMS, TÜV/NORD
Safety	Safe torque off (STO) acc. to EN/IEC 61800-5-2: IEC 61508 ed2: SIL 3, IEC 61511: SIL 3, IEC 62061: SIL CL3, EN ISO 13849-1: PL e
EMC	EMC category C2 (200 V to 400 V) or EMC category C4 (200 V) and C3 (400 V) according to EMC Directive 2004/108/EC, EN 61800-3:2004 + A1 2012
User interface	Integrated icon-based control panel
Drive programming	Adaptive programming
Connectivity types	
Standard variant connections	Four digital inputs, two digital input/outputs, two analog inputs, one analog output, one relay output, STO (SIL3), tool connection (RJ-45), Modbus RTU
Configured variant connections	Two digital inputs, one relay output, STO (SIL3), tool connection (RJ-45), one preconfigured protocol
Preconfigured fieldbus protocols	PROFIBUS DP with DSUB-9 connector CANopen® with DSUB-9 connector EtherCAT® with 2 x RJ-45 PROFINET IO with 2 x RJ-45 (also supports Ethernet/IP™ and Modbus TCP)
Control Options	
Extension modules	BTAC-02 Encoder interface with External +24 V DC support BREL-01 External relay option (four relay outputs) BAPO-01 External +24 V DC support
PC tools and accessories	BCBL-01 USB to RJ-45 data cable Drive composer tool entry, available at no cost via ABB.com Drive composer pro tool Automation builder and Drive Manager for single point of commissioning through PROFIBUS and PROFINET networks
Control panel options	ACS-AP-S assistant control panel ACS-AP-I assistant control panel ACS-AP-W assistant control panel with Bluetooth interface ACS-BP-S basic control panel

